

Comparisons of Job Characteristics

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Agricultural Engineers (17-2021)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 78

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Agricultural Engineers (17-2021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Engineering and Technology	5.7	23.4	15.8	<<	Extensive education and/or training may be required
Design	5.2	21.5	11.1	<<	Extensive education and/or training may be required
Mathematics	9.2	20.1	11.2	<<	Extensive education and/or training may be required
Physics	4.3	18.4	10.2	<<	Extensive education and/or training may be required
Mechanical	6.8	16.0	10.7	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	14.8	6.2	<<	Extensive education and/or training may be required
Building and Construction	4.0	13.8	10.6	<<	Extensive education and/or training may be required
Production and Processing	6.0	12.2	3.2	<<	Extensive education and/or training may be required
Chemistry	4.8	12.1	7.0	<<	Extensive education and/or training may be required
Food Production	2.1	11.4	1.4	<<	Extensive education and/or training may be required
Biology	3.7	11.0	6.8	<<	Extensive education and/or training may be required
Law and Government	5.9	10.2	9.5	0	Current knowledge level may be sufficient
Geography	3.9	9.2	6.2	<<	Extensive education and/or training may be required
Economics and Accounting	4.4	8.3	2.2	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Agricultural Engineers (17-2021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Critical Thinking	10.8	15.0	14.5	0	Current skill level may be sufficient
Complex Problem Solving	9.1	14.2	11.2	<<	Extensive development of skills in this area may be required
Writing	9.2	14.2	11.3	<	A higher skill level may be required
Judgment and Decision Making	9.4	13.2	11.1	<	A higher skill level may be required
Mathematics	6.2	12.0	11.3	0	Current skill level may be sufficient
Systems Analysis	6.5	11.5	7.5	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	11.5	7.7	<<	Extensive development of skills in this area may be required
Science	4.5	9.7	8.3	<	A higher skill level may be required
Technology Design	2.6	7.9	4.5	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	6.3	6.8	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Agricultural Engineers (17-2021)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Written Comprehension	11.0	15.2	16.6	0	Current ability level may be sufficient
Written Expression	9.8	14.5	12.0	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	14.0	13.6	0	Current ability level may be sufficient
Deductive Reasoning	10.6	13.9	14.5	0	Current ability level may be sufficient
Problem Sensitivity	11.1	13.9	15.9	>	Current ability level is likely sufficient
Category Flexibility	9.0	12.2	11.8	0	Current ability level may be sufficient
Information Ordering	9.9	11.9	13.3	>	Current ability level is likely sufficient
Mathematical Reasoning	6.3	11.5	10.6	0	Current ability level may be sufficient
Number Facility	6.3	11.0	10.6	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 91

Focus Occupation: Environmental Engineering Technicians (17-3025)
Associated Occupation: Agricultural Engineers (17-2021)

Work Activities	Exclusivity of Activity
Analyze scientific research data or investigative findings	27
Analyze technical data, designs, or preliminary specifications	47
Calculate engineering specifications	64
Communicate technical information	4
Create mathematical or statistical diagrams or charts	43
Develop plans for programs or projects	31
Estimate cost for engineering projects	69
Evaluate engineering data	60
Examine engineering documents for completeness or accuracy	62
Explain complex mathematical information	30
Follow manufacturing methods or techniques	73
Inspect facilities or equipment for regulatory compliance	51
Prepare technical reports or related documentation	22
Read blueprints	10
Read schematics	34
Read technical drawings	7
Test equipment as part of engineering projects or processes	67
Understand engineering data or reports	48
Use building or land use regulations	65
Use government regulations	44
Use hazardous disposal techniques	80
Use hazardous materials information	35
Use pollution control techniques	62
Use scientific research methodology	21
Use technical information in manufacturing or industrial activities	67
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 88

Focus Occupation: Environmental Engineering Technicians (17-3025)
Associated Occupation: Agricultural Engineers (17-2021)

Tools and Technologies	Exclusivity
Computer printers	2
Computers	1

Content authoring and editing software	1
Industry specific software	1
Information exchange software	1
Network applications software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.